REMARKS

Claims 1-43 are pending. In an Office Action dated July 13, 2005, the Examiner (1) withdrew Claims 24-36 from consideration; (2) rejected Claims 1, 4, 6, 7, 12, 15, 18, 20, 21, 37, 40, and 42; and (3) allowed Claims 2, 3, 5, 8-11, 13, 14, 16, 17, 19, 22, 23, 38, 39, 41, and 43 as if rewritten in independent form. Applicant kindly thanks the Examiner for the acknowledging the existence of allowable subject matter. Applicant hereby traverses the rejections of independent Claims 1, 12, and 37 and respectfully requests reconsideration of these specific rejections in view of the foregoing amendments and the following remarks.

Section 102 Rejections

The Office Action rejected Claims 1, 4, 6, 7, 12, 15, 18, 20, 21, 37, 40, and 42 as being anticipated under 35 USC 102(b) by Alexander *et al.* (U.S. Patent No. 5,532,864). With regards to independent Claims 1, 12, and 37, the Office Action stated that Alexander disclosed a signal source adapted to output a first combined optical signal having a first optical signal portion of a first frequency and a second optical signal portion of a second frequency, the first optical signal portion being associated with a main communication function and the second optical signal portion being associated with a monitoring function.

Applicant has reviewed the Alexander disclosure in detail and respectfully submits that Alexander does not teach or fairly suggest a signal source that outputs both the main communication portion and the monitoring portion. Instead, Alexander teaches a plurality of signal sources that output only a communication signal without any monitoring signal. The communication portion travels down a waveguide and is subsequently amplified. *It is at the amplifiers, rather than the original signal source, whereby an optional monitoring channel transmitter introduces an optical monitoring signal.*

Specifically, Alexander states "Each optical transmitter 20 generally includes a laser (Col 5, Line 6) ... The laser outputs an optical carrier signal (Col 5, Line 13) ... These optical signal

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channels are output from transmitters 20 and are brought together in optical combiner 30 for conveyance to optical waveguide 40 (Col 6, Line 3) ... Interposed along optical waveguide are a plurality of optical amplifiers (Col 6, Line 25) ... When using the amplifier configurations of FIGS 2 and 3, an optical amplifier communicating with a monitoring channel transmitter is advantageously alternated with an optical amplifier communicating with a monitoring channel receiver, i.e. the embodiment of FIG. 2 is alternated with the embodiment of FIG. 3 in the amplifier array of FIG. 1. *In this manner, optical monitoring signals are added and removed at various positions along waveguide 40 in the optical communication system 10.*" (Col 9, Line 24, emphasis added).

Furthermore, Alexander illustrates in FIG. 6 an expanded view of amplifier 50 in FIG. 1, wherein the transmitter for creating monitoring signals is *in the amplifier 50.* Additionally, FIGS. 2, 3, 4, and 5 reinforce the concept that the monitoring transmitters is in the amplifier 50.

Finally, Alexander claims in independent Claim 1 "at least one multiple-stage optical amplifier having at least first and second stages *positioned along said optical waveguide* ... the optical amplifier *comprising ... at least one of an optical monitoring signal transmitter and an optical monitoring signal receiver* (Col 12, Lines 8-45).

Accordingly, in light of this new information, Applicant requests reconsideration of Claims 1, 12, and 37. Applicant submits that Claims 1, 12, and 37 (and their respective dependent claims) are allowable because Alexander fails to teach or suggest a signal source as recited in these claims. More specifically, Claim 1 recites an optical component comprising a signal source *adapted to output a first combined optical signal having a first optical signal portion of a first frequency and a second optical signal portion of a second frequency*, the first frequency being substantially greater than the second frequency; and a controller operatively coupled to the signal source and being adapted to induce the signal source to output the first and second optical signal portions, the first optical signal portion being associated with a main communication function and the second optical signal portion being associated with a monitoring

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function. (emphasis added). As described more fully above, Alexander fails to teach or fairly suggest the apparatus having a signal source as recited in claim 1.

Similarly, claim 12 recites an optical component, comprising *a receiver assembly adapted to receive a combined optical signal from a single optical signal source and to separate from the combined optical signal a first optical signal portion of a first frequency and a second optical signal portion of a second frequency, the first frequency being substantially greater than the second frequency*; and a controller operatively coupled to the receiver assembly and being adapted to process the first and second optical signal portions, the first optical signal portion being associated with a main communication function and the second optical signal portion being associated with a monitoring function. (emphasis added). As described more fully above, Alexander fails to teach or fairly suggest the apparatus recited in claim 12.

Finally, amended claim 37 recites a method of operating an optical system, comprising *transmitting a combined optical signal from a single optical signal source, the combined optical signal having a first portion characterized by a first frequency and a second portion characterized by a second frequency, the first frequency being substantially greater than the second frequency*; receiving the combined optical signal; separating the first and second portions; processing the first portion to derive a primary data signal; and processing the second portion to derive a health data signal. (emphasis added). As described more fully above, Alexander fails to teach or fairly suggest the method recited in claim 37.

The Office Action further rejected Claims 4, 18, 40, 6-7, 15, 20-21, and 42 as anticipated by Alexander. Applicant submits that these claims are novel in light of Alexander failing to teach or fairly suggest each of the limitations in the respective independent claims from which these claims depend.

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CONCLUSION

Applicant kindly thanks the Examiner for finding allowable subject matter. However, Applicant respectfully requests reconsideration, allowance, and early passage of the claims through issuance. The Examiner is invited to contact the Applicant's Attorney with any questions.

Respectfully submitted,

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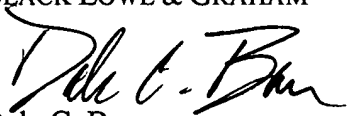

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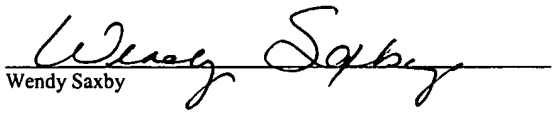

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